

**REMARKS**

The Official Action mailed May 25, 2010, has been received and its contents carefully noted. This response is filed within three months of the mailing date of the Official Action and therefore is believed to be timely without extension of time. Accordingly, the Applicant respectfully submits that this response is being timely filed.

The Applicant notes with appreciation the consideration of the Information Disclosure Statement filed on July 6, 2006.

A further Information Disclosure Statement is submitted herewith and consideration of this Information Disclosure Statement is respectfully requested.

Claims 10, 11, 29-33 and 49-54 were pending in the present application prior to the above amendment. Claim 54 has been canceled without prejudice or disclaimer and claims 10, 11, 29-33 and 49-53 have been amended to better recite the features of the present invention. Accordingly, claims 10, 11, 29-33 and 49-53 are now pending in the present application, of which claims 10 and 29 are independent. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

Paragraph 8 of the Official Action rejects claims 49 and 52 under 35 U.S.C. § 112, first paragraph asserting that the claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. Specifically, the Official Action asserts that claims 49 and 52 recites "wherein the substituted or unsubstituted phenyl group and the substituted or unsubstituted naphthyl group are selected from a phenyl group, a 4-phenyl group, a 1-naphthyl group, a 2-naphthyl group, a 9-anthryl group, a 9-phenanthryl group, a 1-pyrenyl group, a 9,9'-demethyl-2-fluorenyl group, a spiro-9,9'-bifluorene-2-yl group, a m-tolyl group, a p-tolyl group, a 2-fluorophenyl group, a 3-fluorophenyl group, a 4-fluorophenyl group" and that "the specification does not disclose these compounds as substituted or unsubstituted phenyl groups or substituted or unsubstituted naphthyl groups" (page 4, Paper No. 20100510).

Paragraph 11 of the Official Action rejects claims 10, 11, 29-33 and 49-54 under 35 U.S.C. § 112, second paragraph asserting that the claims are indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Specifically, the Official Action asserts that claims 10, 49, 50 and 52 claims R<sup>21</sup> is a substituted or unsubstituted phenyl group, a substituted or unsubstituted naphthyl group, or a heteroaryl group having 5 to 9 carbon atoms and then further claims that wherein the substituted or unsubstituted phenyl group and the substituted or unsubstituted naphthyl group are selected from a phenyl group, a 4-phenyl group, a 1-naphthyl group, a 2-naphthyl group, a 9-anthryl group, a 9-phenylantryl group, a 1-pyrenyl group, a 9,9'-dimethyl-2-fluorenyl group, a spiro-9,9'-bifluorene-2-yl group, a m-tolyl group, a p-tolyl group, a 2-fluorophenyl group, a 3-fluorophenyl group, a 4-fluorophenyl group" and that "it is unclear what Applicant interprets a substituted or unsubstituted phenyl group and a substituted or unsubstituted naphthyl group to be" (page 5, Id.).

In response, the Applicant has amended the claims to clarify the features of the claimed invention. Specifically, claim 29 has been amended in independent form and independent claims 10 and 29 have been amended to recite general formula (1) and that substituents R<sup>11</sup> and R<sup>13</sup> are different from each other. The current amendment is supported in the specification, at least, by paragraphs [0011] and [0012] of the pre-grant publication of this application. Variation of other substituents (R<sup>12</sup>, R<sup>14</sup>, and Ar<sup>11</sup>) is also supported, at least, by paragraph [0012] of the publication. Claim 49 has also been amended to accord with the comment of the Official Action that "[the] Applicant discloses these compounds as aryl groups having 6 to 25 carbon atoms (see paragraph [0053] of the specification)" (page 4, Id.) and is also supported, at least, by paragraph [0097] of the publication. Furthermore, amendments to dependent claims 11 and 32 are supported in the specification, at least, by paragraphs [0014] and [0015]; amendments to claims 30, 31, 51, 52 and 53 are supported in the specification, at least, by paragraphs [0030] to [0034]; and amendments to claim 50 are supported, at least, by paragraph [0035]. The Applicant respectfully submits that the amended claims, when

read in light of the specification, comply with the written description requirement and are adequately described and supported in the specification. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 112 are in order and respectfully requested.

Paragraph 15 of the Official Action rejects claims 10, 11, 29, 30, 32, 33, 50, 51, 53 and 54 as obvious based on the combination of U.S. Publication No. 2004/0151944 to Onikubu and U.S. Patent No. 6,660,410 to Hosokawa and U.S. Publication No. 2003/0175553 to Thompson. Paragraph 21 of the Official Action rejects claim 31 as obvious based on the combination of Onikubo, Hosokawa, Thompson and U.S. Publication No. 2001/0046612 to Lee. Paragraph 25 of the Official Action rejects claims 10, 11 and 49 as obvious based on U.S. Patent No. 5,756,248 to Tanaka. Paragraph 29 of the Official Action rejects claims 10, 11, 29-33 and 50-54 as obvious based on the combination of Liu, Enhancement in brightness and efficiency of organic electroluminescent device using novel N,N-di(9-ethylcarbaz-3-yl)-3-methylaniline as hole injecting and transporting material, Synthetic Metals 146 (2004) 85-89, Hosokawa and Thompson. The Applicant respectfully submits that a *prima facie* case of obviousness cannot be maintained against the independent claims of the present application, as amended.

As stated in MPEP §§ 2142-2144.04, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some reason to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the

problem to be solved as a whole would have suggested to those of ordinary skill in the art.” In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).


The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims, as amended. Independent claims 10 and 29 have been amended to recite that the substituents ( $R^{11}$  and  $R^{13}$ ) on the carbazole-nitrogen are different from each other. The Applicant respectfully submits that Onikubo, either alone or in combination with Hosokawa, Thompson and Lee; Tanaka; and Liu, either alone or in combination with Hosokawa and Thompson, do not teach or suggest a carbazole derivative represented by a general formula (1), wherein substituents ( $R^{11}$  and  $R^{13}$ ) are different from each other.

Since the various asserted prior art do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

The Commissioner is hereby authorized to charge fees under 37 C.F.R. §§ 1.16, 1.17, 1.20(a), 1.20(b), 1.20(c), and 1.20(d) (except the Issue Fee) which may be required now or hereafter, or credit any overpayment to Deposit Account No. 50-2280.

Respectfully submitted,



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